

NOAA Marine Science Career - Case Studies

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There are many different types of organisms that live in our oceans and for a marine biologist there are many things to study.

Dr. Rob Toonen is an Associate Research Professor who works at the Hawaii Institute of Marine Biology with the University of Hawaii at Manoa. Rob shared with us information about his research and what it took to become a research professor in the field of marine biology.

Rob's lab is located about 50 yards from a coral reef, which means he is able to go right outside and do his work. Some of his research investigates how marine invertebrates are able to develop from their larval stage and successfully grow on the coral reef. Many marine animals begin their lives in an immature stage, where their shape is different from their adult form. Rob is interested in how these animals are able to travel through the water, how they decide where to settle and grow, and how some animals can delay their change from the juvenile to the adult body form. Rob is also interested in aquarium science and how animals are raised specifically for the aquarium trade, so he tries to have at least one aquarium science research project underway in his lab at any given time.



Have you always been interested in marine life?

I became interested in marine life when I was young. I grew up in Canada about a twenty hour drive from the nearest ocean. Since we did not live near the ocean my dad brought the ocean to me by setting me up with several aquariums to care for. This sparked my love of marine biology and my fascination with the diversity and complexity within the marine world, especially coral reefs.



How did you become a marine biologist?

My career path started by managing a fish shop and I continued that work through college. When I started college I thought I would instantly become a marine biologist. To my surprise I learned there were several background courses I needed to take before I could even get to all the marine biology classes. My college experience taught me that the things you have to learn are not always what you want to be learning; however, looking back, I now see the importance of all of that information. It turns out that those writing and public speaking skills I obtained and thought were not going to be useful, are a big part of my current job. Completing my Zoology bachelor's degree at the University of Alberta is something that I owe to several of my professors and mentors who played a crucial role in helping and keeping me on track to my current career.

In the process of getting my Master's degree in Marine Sciences at the University of North Carolina followed by my Ph.D. in Population Biology at the University of California at Davis, I

worked as a dolphin trainer, had my own aquarium repair and maintenance business and worked as an environmental consultant. Finally in 2003, after years of field experience and the completion of all of my degree programs, I was finally able to be a researcher in Hawaii. Today I get to use what I learned from all of my previous jobs, my love of aquaria and all of my years of schooling to conduct research on coral reefs.

Do you have any advice for students who might want to be marine biologists?

If you are interested in marine biology, the best way to start is to volunteer. Volunteering at places like a research lab to get research experience will result in many opportunities.